

CLAIMS

What is claimed is:

1. A reverse biasing assembly for use with a manual transmission assembly comprising:
 - an interlock moveable between a first position and a second position;
 - a detent mechanism which substantially contacts said interlock; and
 - a detent switch coacting with said detent mechanism to indicate when said interlock is in said first position.
2. The reverse biasing assembly as recited in claim 1 wherein said interlock further includes a contoured perimeter having an arcuate surface and a raised ramp and said detent mechanism further includes a contact surface which substantially contacts said contoured perimeter of said interlock.
3. The reverse biasing assembly as recited in claim 2 wherein said contact surface of said detent mechanism substantially contacts said raised ramp of said interlock when said interlock is in said first position.
4. The reverse biasing assembly as recited in claim 3 wherein said detent mechanism is moveable by a spring member to allow said contact surface of said detent mechanism to substantially contact said contoured perimeter of said interlock as said interlock rotates.

5. The reverse biasing assembly as recited in claim 1 wherein said manual transmission assembly is in a reverse gear or a first forward gear when said interlock is in said first position.
6. The reverse biasing assembly as recited in claim 1 wherein said detent mechanism includes an exterior surface and a recessed portion positioned thereon.
7. The reverse biasing assembly as recited in claim 6 wherein said detent switch includes a contact pin and a switch portion.
8. The reverse biasing assembly as recited in claim 7 wherein said contact pin engages said exterior surface of said detent mechanism and said switch portion when said interlock is in said first position.
9. The reverse biasing assembly as recited in claim 7 wherein a splitter can be employed when said contact pin engages said switch portion.
10. The reverse biasing assembly as recited in claim 7 wherein said contact pin engages said recessed portion of said detent mechanism when said interlock is in said second position, said contact pin disengaging from said switch portion.

11. A manual transmission assembly comprising:

a shift lever to operatively rotate an interlock;

a reverse biasing assembly including said interlock rotatable between a first position and a second position, a detent mechanism which substantially contacts said interlock, and a detent switch coacting with said detent mechanism to indicate when said interlock is in said first position;

a shift rail rotatable and axially moveable by said shift lever, said shift rail rotating with said interlock;

a plurality of shift forks operatively engageable by said shift rail;

a plurality of gears operatively connected to said plurality of shift forks;

and

a switch to provide an indication to a splitter mechanism of when said interlock is in a predetermined position.

12. The manual transmission assembly as recited in claim 11, wherein said interlock is rotatable between a first position and a second position, a detent mechanism substantially contacting said interlock, and a detent switch coacting with said detent mechanism to indicate when said interlock is in said first position, to provide the indication to a splitter mechanism.

13. The manual transmission assembly as recited in claim 12 wherein said interlock further includes a contoured perimeter having an arcuate surface and a raised ramp and said detent mechanism further includes a contact surface which substantially contacts said contoured perimeter of said interlock.
14. The manual transmission assembly as recited in claim 13 wherein said contact surface of said detent mechanism substantially contacts said raised ramp of said interlock when said interlock is in said first position.
15. The manual transmission assembly as recited in claim 14 wherein said detent mechanism is moveable by a spring member to allow said contact surface of said detent mechanism to substantially contact said contoured perimeter of said interlock as said interlock rotates.
16. The manual transmission assembly as recited in claim 12 wherein said manual transmission assembly is in a reverse gear or a first forward gear when said interlock is in said first position.
17. The manual transmission assembly as recited in claim 12 wherein said detent mechanism includes an exterior surface and a recessed portion positioned thereon.

18. The manual transmission assembly as recited in claim 7 wherein said detent switch includes a contact pin and a switch portion.

19. The manual transmission assembly as recited in claim 18 wherein said contact pin engages said exterior surface of said detent mechanism and said switch portion when said interlock is in said first position.

20. The manual transmission assembly as recited in claim 18 wherein said contact pin engages said recessed portion of said detent mechanism when said interlock is in said second position, said contact pin disengaging from said switch portion.